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SESSION RESUMED IN FILE 'HOME' AT 11:18:48 ON 09 MAY 2006
FILE 'HOME' ENTERED AT 11:18:48 ON 09 MAY 2006
COST IN U.S. DOLLARS

	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	0.63	0.90

=> file caplus

COST IN U.S. DOLLARS

	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	0.84	1.11

FILE 'CAPLUS' ENTERED AT 11:19:10 ON 09 MAY 2006
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FILE COVERS 1907 - 9 May 2006 VOL 144 ISS 20
FILE LAST UPDATED: 8 May 2006 (20060508/ED)

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=> s (MACA or Lepidium)

112 MACA

9 MACAS

119 MACA

(MACA OR MACAS)

1284 LEPIDIUM

1 LEPIDIUMS

1285 LEPIDIUM

(LEPIDIUM OR LEPIDIUMS)

L1 1358 (MACA OR LEPIDIUM)

=> l1 and trout

L1 IS NOT A RECOGNIZED COMMAND

The previous command name entered was not recognized by the system. For a list of commands available to you in the current file, enter "HELP COMMANDS" at an arrow prompt (=>).

=> s (trout or fish)

16635 TROUT

180 TROUTS

16667 TROUT

(TROUT OR TROUTS)

140505 FISH

9668 FISHES

142893 FISH

(FISH OR FISHES)

L2 149400 (TROUT OR FISH)

=> 2 (L1 and L2)

2 IS NOT A RECOGNIZED COMMAND

The previous command name entered was not recognized by the system.

For a list of commands available to you in the current file, enter

"HELP COMMANDS" at an arrow prompt (=>).

=> s (L1 and L2)

L3 15 (L1 AND L2)

=> d l3

L3 ANSWER 1 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2005:1335277 CAPLUS

DN 144:65954

TI Wild-type and mutant Escherichia coli phytases and nucleic acids encoding them and their commercial uses

IN Short, Jay M.; Kretz, Keith A.; Gray, Kevin A.; Barton, Nelson Robert; Garrett, James B.; O'Donoghue, Eileen; Baum, William; Robertson, Dan E.; Zorner, Paul

PA USA

SO U.S. Pat. Appl. Publ., 82 pp., Cont.-in-part of U.S. Ser. No. 866,379.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 9

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2005281792	A1	20051222	US 2004-933115	20040901
	US 5876997	A	19990302	US 1997-910798	19970813
	EP 1600505	A1	20051130	EP 2005-13009	19980813
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
	US 6110719	A	20000829	US 1999-259214	19990301
	US 6190897	B1	20010220	US 1999-291931	19990413
	US 6183740	B1	20010206	US 1999-318528	19990525
	US 6720014	B1	20040413	US 2000-580515	20000525
	US 2002136754	A1	20020926	US 2001-866379	20010524
	US 6855365	B2	20050215		
	AU 2004205269	A1	20040923	AU 2004-205269	20040826
	WO 2006028684	A2	20060316	WO 2005-US29621	20050818
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
PRAI	US 1997-910798	A3	19970813		
	US 1999-259214	A1	19990301		
	US 1999-291931	A2	19990413		
	US 1999-318528	A2	19990525		
	US 2000-580515	A2	20000525		
	US 2001-866379	A2	20010524		
	EP 1998-940861	A3	19980813		
	AU 2001-78247	A3	20011005		
	US 2004-933115	A	20040901		

=> d

L3. ANSWER 1 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 2005:1335277 CAPLUS
 DN 144:65954
 TI Wild-type and mutant Escherichia coli phytases and nucleic acids encoding them and their commercial uses
 IN Short, Jay M.; Kretz, Keith A.; Gray, Kevin A.; Barton, Nelson Robert; Garrett, James B.; O'Donoghue, Eileen; Baum, William; Robertson, Dan E.; Zorner, Paul
 PA USA
 SO U.S. Pat. Appl. Publ., 82 pp., Cont.-in-part of U.S. Ser. No. 866,379.
 CODEN: USXXCO
 DT Patent
 LA English
 FAN.CNT 9

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2005281792	A1	20051222	US 2004-933115	20040901
	US 5876997	A	19990302	US 1997-910798	19970813
	EP 1600505	A1	20051130	EP 2005-13009	19980813
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
	US 6110719	A	20000829	US 1999-259214	19990301
	US 6190897	B1	20010220	US 1999-291931	19990413
	US 6183740	B1	20010206	US 1999-318528	19990525
	US 6720014	B1	20040413	US 2000-580515	20000525
	US 2002136754	A1	20020926	US 2001-866379	20010524
	US 6855365	B2	20050215		
	AU 2004205269	A1	20040923	AU 2004-205269	20040826
	WO 2006028684	A2	20060316	WO 2005-US29621	20050818
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
PRAI	US 1997-910798	A3	19970813		
	US 1999-259214	A1	19990301		
	US 1999-291931	A2	19990413		
	US 1999-318528	A2	19990525		
	US 2000-580515	A2	20000525		
	US 2001-866379	A2	20010524		
	EP 1998-940861	A3	19980813		
	AU 2001-78247	A3	20011005		
	US 2004-933115	A	20040901		

=> d 2-15 abs ibib

L3 ANSWER 2 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN
 AB The toxicity of municipal wastewater samples, taken from the 2nd industrial zone and the general sewerage outlet were studied by bioassays using garden cress (*Lepidium sativum*) and freshwater fish (*Lebistes reticulatus*) as test organisms. The LC50 (72-h) values of the fish in both Konya City wastewater samples, the general effluent and that of the 2nd industrial zone, were calculated to be 41 and 47%, whereas the highest seedling percentages of garden cress were calculated to be 83 and 79%, resp. The toxicity dilution factors of the wastewaters were found to be within the acceptable range for industrial discharge into sewerage systems and according to the industrial wastewater discharge rules of the Turkish water pollution control regulations.

ACCESSION NUMBER: 2005:144411 CAPLUS
 DOCUMENT NUMBER: 142:468497
 TITLE: An investigation on the toxicity of sewage
 AUTHOR(S): Aydin, Mehmet E.; Kara, Guelnihal

CORPORATE SOURCE: Department of Environmental Engineering, Selcuk
University, Konya, Turk.
SOURCE: Fresenius Environmental Bulletin (2004), 13(12a),
1444-1448
CODEN: FENBEL; ISSN: 1018-4619
PUBLISHER: PSP - Parlar Scientific Publications
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 3 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN

AB A feeding trial was conducted to examine the supplemental effects of
maca (*Lepidium meyenii*) meal and its components extracted by
four different solvents on growth performance, feed utilization, and
survival in rainbow trout fry fish. The fish
were fed 8 casein-based semipurified isonitrogenous and isocaloric diets
containing 15% wheat flour (control, diet 1), 15% maca meal (diet
2), 12.5% maca meal residue after extraction (diet 3), mixture of 4
maca meal exts. (diet 4), hexane extract (diet 5), dichloromethane
extract (diet 6), Et acetate extract (diet 7), and methanol extract (diet 8). In
vitro 1,1-diphenyl-2-picrylhydrazyl (DPPH) radical inhibition indexes
increased in a dose-dependent manner as the concentration of methanolic exts. of
maca meal increased. For the antioxidant activities of the 4
exts., only the methanolic extract showed higher inhibition of DPPH radicals
compared to the other 3 exts. After 14-wk feeding, the fish fed
diet 2 had the highest growth rate among all the dietary treatments.
Fish fed diets 2, 3, and 8 had higher growth than the fish
fed the other diets. Feed intake was higher in fish fed diets
2, 3, and 8 than in fish fed diets 1 and 5. Feed conversion
ratio (FCR) and protein efficiency ratio (PER) were also improved in
fish fed diets 2 and 3 vs. fish fed diets 1, 5, 6, and
7. Survival was higher in fish fed diet 2 vs. 1, 5, and 6.
Thus, certain compds. in maca meal have growth-enhancing effects
in rainbow trout juvenile fish. The compds. of
interest have high polarity and can be extracted by methanol. The compds.
have antioxidant capacity that might increase fish resistance
against stress and/or diseases.

ACCESSION NUMBER: 2005:69607 CAPLUS
DOCUMENT NUMBER: 142:446537
TITLE: Activity-guided fractionation of phytochemicals of
maca meal, their antioxidant activities and
effects on growth, feed utilization, and survival in
rainbow trout (*Oncorhynchus mykiss*)
juveniles
AUTHOR(S): Lee, Kyeong-Jun; Dabrowski, Konrad; Sandoval, Manuel;
Miller, Mark J. S.
CORPORATE SOURCE: School of Natural Resources, The Ohio State
University, Columbus, OH, 43210, USA
SOURCE: Aquaculture (2005), 244(1-4), 293-301
CODEN: AQCLAL; ISSN: 0044-8486
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 4 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN

AB Claimed are foods containing coenzyme Q, maca extract, and (
fish oil containing) DHA and/or EPA. The foods prevent developing of
age-related diseases, promote health, and are useful for treatment of
fatigue, constipation, etc. (no data). Thus, soft capsules were
formulated containing coenzyme Q10, maca extract powder, tuna oil, and
vitamin E.

ACCESSION NUMBER: 2005:11570 CAPLUS
DOCUMENT NUMBER: 142:73818
TITLE: Coenzyme Q-containing antiaging foods
INVENTOR(S): Indo, Haruko
PATENT ASSIGNEE(S): Shinbijumu Y. K., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005000033	A2	20050106	JP 2003-165298	20030610
PRIORITY APPLN. INFO.:			JP 2003-165298	20030610

L3 ANSWER 5 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN

AB Laboratory tests were conducted on higher plants [garden cress (*Lepidium sativum*), great duckweed (*Spirodela polyrrhiza*), and *Tradescantia* clone BNL 02] and fish [rainbow trout (*Oncorhynchus mykiss*) at all stages of development: eggs, larvae, and adults] to estimate their sensitivity to heavy fuel oil (HFO). A number of biol. indexes (survival, growth, and physiol. and morphol. parameters) as well as the genotoxic impact (*Tradescantia*) of HFO was evaluated by acute and chronic toxicity tests. Fish were found to be more sensitive to the toxic effect of HFO than were higher plants. EC50 values obtained for higher plants ranged from 8.7 g/L (*L. sativum*) to 19.8 g/L (*Tradescantia*), and maximum-acceptable-toxicant concentration (MATC) values ranged from 0.1 to 1.0 g/L of total HFO for *L. sativum* and *Tradescantia*, resp. The 96-h LC50 values ranged from 0.33 g/L, for larvae, to 2.97 g/L, for adult fish, and the MATC value for fish was found to be equal to 0.0042 g/L of total HFO. To evaluate and predict the ecol. risk of the overall effects of oil spills, studies should be performed using a set of acute and chronic bioassays that include test species of different phylogenetic levels with the most sensitive morphol., physiol., and genotoxic indexes.

ACCESSION NUMBER: 2004:663156 CAPLUS
DOCUMENT NUMBER: 141:326949
TITLE: Comparative study on sensitivity of higher plants and fish to heavy fuel oil
AUTHOR(S): Kazlauskienė, N.; Svecevičius, G.; Vosyliene, M. Z.; Marciulionienė, D.; Montvydiene, D.
CORPORATE SOURCE: Institute of Ecology, Vilnius University, Vilnius, LT-08412, Lithuania
SOURCE: Environmental Toxicology (2004), 19(4), 449-451
CODEN: ETOXFH; ISSN: 1520-4081
PUBLISHER: John Wiley & Sons, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 6 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN

AB The toxicity and chemical quality of surface water and sediment in the River Traun in Austria were studied because of recurrent fish mortality in some alpine rivers over the last few years. The analyses were carried out on samples collected during winter and summer upstream and downstream of two municipal wastewater treatment plants (WWTPs) and on effluents taken at the points of discharge of these two plants. Toxicity tests were performed on 20 samples of surface water, effluent, and sediment pore water. The test battery was composed of microbiotests with protozoans (Protoxkit F), microalgae (Algaltoxkit F), crustaceans (Daphtoxkit F magna and Thamnotoxkit F), and a higher plant (seed germination and root elongation assay on cress). Direct contact tests were performed on whole sediment with crustaceans (Ostracodtoxkit F). The phys.-chemical characteristics of the surface water, effluent, and sediment pore water samples analyzed were conductivity, total hardness, pH, O₂, BOD₅, TOC, DOC, AOX, NH₄, NH₃, NO₂, PO₄-P, Cd, Pb, Cu, and Zn. The toxicity data were expressed as percentage mortality or percentage inhibition, depending on the effect criterion of the resp. assay. None of the water samples collected upstream and downstream of the WWTPs showed any significant (short-term) toxicity in either winter or in summer, but the effluents of the first municipal wastewater treatment plant were toxic to some of the test biota. All the sediment pore water samples induced serious inhibition of root growth of cress, and several pore waters were toxic to other test biota as well, particularly at the outlets of the WWTPs. The

toxic character of some sediments was confirmed by direct contact tests with the ostracod crustacean. The chemical analyses did not reveal particularly high concns. of any chemical that is very toxic. As a result no direct causal relationship could be established between the detected toxic effects and the chemical composition of the surface waters or sediment pore waters. The outcome of this preliminary study again highlights the need to complement chemical analyses with toxicity tests to determine the toxic hazard to aquatic environments that may be threatened by contamination. Furthermore, the investigations also confirmed the need to apply a battery of tests for an ecol. meaningful evaluation of the hazards of waters, sediments, and wastewaters. Finally, the results of the 360 bioassays performed show that culture-independent microbiotests are practical and reliable tools for low-cost toxicity monitoring of aquatic environments.

ACCESSION NUMBER: 2004:663132 CAPLUS
DOCUMENT NUMBER: 141:344697
TITLE: Toxicity assessment of wastewaters, river waters, and sediments in Austria using cost-effective microbiotests
AUTHOR(S): Latif, Muna; Licek, Elisabeth
CORPORATE SOURCE: Institute of Hydrobiology, Ichthyology and Apidology, University of Veterinary Medicine, Vienna, A-1210, Austria
SOURCE: Environmental Toxicology (2004), 19(4), 302-309
CODEN: ETOXFH; ISSN: 1520-4081
PUBLISHER: John Wiley & Sons, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 7 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN

AB An extract and procedure are disclosed for extracting the polar components from plants of the Family Brassicaceae, specifically but not limited to the genus *Lepidium* ("Maca" in Andean culture). The extraction has an increased polar and decreased lipidic constituent concentration with an increased pharmacocol. ability to affect growth parameters relative to the parent material. The concentration of polar constituents makes the product more amenable to preps. that increase growth parameters in aquaculture.

ACCESSION NUMBER: 2004:569693 CAPLUS
DOCUMENT NUMBER: 141:88234
TITLE: Maca products and their uses
INVENTOR(S): Bobrowski, Paul J.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 11 pp., Cont.-in-part of U.S. Ser. No. 655,598, abandoned.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004137131	A1	20040715	US 2003-676459	20030930
PRIORITY APPLN. INFO.:			US 1999-152468P	P 19990903
			US 2000-655598	B2 20000905

L3 ANSWER 8 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN

AB Laboratory tests were conducted on test-organisms of different phylogenetic level: higher plants (garden cress *Lepidium sativum*, great duckweed *Spirodela polyrrhiza*), and fish (rainbow trout *Oncorhynchus mykiss*) in all stages of development (embryos, larvae, adults) to estimate their sensitivity to the model mixture of 5 heavy metals. Concns. of heavy metals in mixture were: Cu - 0.5; Zn - 1.0; Ni - 0.5; Cr - 2.5; Fe - 5.0 mg/L, resp. Comparative large-scale investigation on the toxic effect (acute toxicity and phytotoxicity) of the heavy metal model mixture (HMMM) was performed under the controlled exptl. conditions. All test-organisms studied showed high sensitivity to the toxic effect of HMMM. It was found that fish in the early stages of their development were more sensitive to the impact of HMMM than plants, but in

some cases plants demonstrated higher sensitivity (*S. polyrrhiza* was found to be more sensitive than adult fish). Single heavy metals in all cases were less toxic than those in HMMM and their toxic effect (more-than-additive) was independent of test-organism phylogenetic level and ontogenesis. All the test-organisms studied can be suggested for use in bioassay of waste-waters polluted with heavy metal complexes.

ACCESSION NUMBER: 2004:516522 CAPLUS
DOCUMENT NUMBER: 141:220136
TITLE: Comparative studies of the toxic effects of heavy metal model mixture on organisms of different phylogenetic level and ontogenesis
AUTHOR(S): Kazlauskienė, N.; Marciulionienė, D.; Montvydiene, D.; Svecevicius, G.; Vosyliene, M-Z.
CORPORATE SOURCE: Institute of Ecology of Vilnius University, Vilnius, LT-2600, Lithuania
SOURCE: Environmental and Chemical Physics (2003), 25(3), 116-122
CODEN: ECPNB5; ISSN: 1392-740X
PUBLISHER: Institute of Physics
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 9 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN

AB The toxic effects of heavy metals on test-organisms of different phylogenetic level and life stages were investigated and their sensitivity to the impact of heavy metals was compared. The obtained data showed that in most cases Cu was the most toxic metal to both plants and animals, but Zn, which is one of the least toxic metals to plants, was very toxic to animals, and on the contrary, Cr(VI), which is one of the least toxic to animals, was very toxic to plants. It was established that according to the sensitivity to heavy metals based on the median effective concentration (EC50) values, the tested plants might be arranged in the following sequences: *L. sativum* > *S. polyrrhiza* > *Tradescantia* (for Cr(VI)), *S. polyrrhiza* > *Tradescantia* > *L. sativum* (for Cu), *S. polyrrhiza* = *Tradescantia* > *L. sativum* (for Ni) and *Tradescantia* > *S. polyrrhiza* > *L. sativum* (for Zn), as well as *O. mykiss* of different life stages (based on 96-h LC50) might be arranged in the following sequences: larvae > eggs > adult fish (for Cr(VI), Fe(II), Ni and Zn) and larvae > adult fish > eggs (for Cu). It was found that it was impossible to single out the most sensitive object among those studied that could be universal for all of the tested metals. In accordance with the sensitivity to the impact of heavy metals, animals in the earliest stages of their development were more sensitive than plants, but the plants in some cases were more sensitive to heavy metals than adult fish. The investigation showed that plants *S. polyrrhiza*, *L. sativum*, and *Tradescantia*, as well as animals *O. mykiss* of different life stages due to a different sensitivity to the impact of heavy metals might be recommended for the inclusion in the complex of biotests for the assessment of the toxic impact of the heavy metals.

ACCESSION NUMBER: 2003:379453 CAPLUS
DOCUMENT NUMBER: 139:112854
TITLE: Comparative analysis of the sensitivity of test-organisms of different phylogenetic level and life stages to heavy metals
AUTHOR(S): Marciulionienė, D.; Montvydiene, D.; Kazlauskienė, N.; Svecevicius, G.
CORPORATE SOURCE: Institute of Botany, Vilnius, LT-2021, Lithuania
SOURCE: Environmental and Chemical Physics (2002), 24(2), 73-78
CODEN: ECPNB5; ISSN: 1392-740X
PUBLISHER: Institute of Physics
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 10 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN

AB Seventy samples of poultry feeds including «starting» mixed

feed, corn, barley, wheat barn, fish-meal and soya, sunflower and colza cakes, were analyzed for fungal contamination. Their water activity was also determined. Parallely their activity of water was determined. The total fungal loads in analyzed samples varied around 105 cfu/g, while the activity of water varied from 0.73 to 0.83. The identification of 196 isolates of molds obtained revealed that they belonged to 10 different genera. *Penicillium* and *Aspergillus* were the most represented (35.7 % and 20.4 %, resp.). The other genera identified were *Fusarium*, *Alternaria*, *Trichoderma*, *Cladosporium*, *Verticillium*, *Mucor*, *Rhizopus* and *Ulocladium*. Three out of ten *A. flavus* Link isolates, were able to produce aflatoxin B1 on rice. One isolate among 4 *A. ochraceus* Wilhelm and 2 among 14 *P. verrucosum* produced ochratoxin A on wheat. The toxigenesis of these strains was lower on the substrates from which they had been isolated from than on reference substrate, and even nil on soya. None of the 15 *Fusarium roseum* isolates produced zearalenone on corn. Cultured on a rich medium containing Yeast Extract and Sucrose, 40 isolates including *Penicillium*, *Aspergillus*, *Fusarium* and *Alternaria* representatives were able to produce toxic metabolites as revealed by routine biol. tests. One of «starting» mixed food was found to be contaminated with 1.4 ppb aflatoxin B1.

ACCESSION NUMBER: 2001:498622 CAPLUS
DOCUMENT NUMBER: 135:287733
TITLE: Study of toxigenic moulds and mycotoxins in poultry feeds
AUTHOR(S): Benkerroum, S.; Tantaoui-Elaraki, A.
CORPORATE SOURCE: U.F.R: Exploitation et conservation du domaine marin, Universite Ibn Tofail, Casablanca, 20300, Morocco
SOURCE: Revue de Medecine Veterinaire (Toulouse, France) (2001), 152(4), 335-342
CODEN: RVMVAH; ISSN: 0035-1555
PUBLISHER: Ecole Nationale Veterinaire de Toulouse
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 11 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN

AB Hydrofluorocarbons (HFCs) and hydrochlorofluorocarbons (HCFCs) are used or developed as substitutes for fully halogenated chlorofluorocarbons. Based on the results of closed-bottle tests, the biodegrdn. of HFC-32, HCFC-123, HCFC-124, HFC-125, HFC-134a, HCFC-141b, HCFC-225ca, and HCFC-225cb was less than 60% after 28 days and therefore these compds. are considered not readily biodegradable. Standard acute toxicity tests with HCFC-123, HCFC-141b, and HCFC-225ca using algae, water fleas, and fish revealed EC50 values in the range of 17-126 mg/L. EC50 values of HFC-134a ranged between 450-980 mg/L. Fish studies with HCFC-141b and HCFC-225ca revealed bioaccumulation factors of <3 and 15-64, resp. A study with plants revealed no effect of HCFC-141b on seed germination and growth of wheat (*Triticum aestivum*), radish (*Raphanus sativus*), and cress (*Lepidium sativum*). In conclusion, HFCs and HCFCs are not very toxic to aquatic organisms and terrestrial plants. No evidence for any aerobic biodegrdn. for most of the HFCs and HCFCs was found.

ACCESSION NUMBER: 1999:43205 CAPLUS
DOCUMENT NUMBER: 130:233357
TITLE: Biodegradation and Ecotoxicity of HFCs and HCFCs
AUTHOR(S): Berends, A. G.; de Rooij, C. G.; Shin-ya, S.; Thompson, R. S.
CORPORATE SOURCE: DCT/ES-Toxicology, Solvay S.A., Rue de Ransbeek 310, Brussels, B-1120, Belg.
SOURCE: Archives of Environmental Contamination and Toxicology (1999), 36(2), 146-151
CODEN: AECTCV; ISSN: 0090-4341
PUBLISHER: Springer-Verlag New York Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 12 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN

AB A review with 20 refs. of the determination of title toxicity to algae,

Lepidium sativum, *Daphnia magna*, and fish.

ACCESSION NUMBER: 1988:418215 CAPLUS
DOCUMENT NUMBER: 109:18215
TITLE: Aquatic toxicity - an important criterion for
evaluation of substances and wastewaters (emissions)
and determination of the toxic pollution of surface
waters (immissions)
AUTHOR(S): Koller-Kreimel, Veronika; Rodinger, Wolfgang
CORPORATE SOURCE: Bundesamst. Wasserguete, Vienna, A-1223, Austria
SOURCE: Wasser und Abwasser (Vienna) (1987), 31, 413-32
CODEN: WAABDC; ISSN: 0508-122X
DOCUMENT TYPE: Journal; General Review
LANGUAGE: German

L3 ANSWER 13 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN

AB The percentage of dry matter, thiamine, riboflavin, and niacin of
Antidesma bunius, avocado, banana, canistel, sweet carambolas, grapefruit,
guava, lemon, lime, litchi, mango, orange, papaya, passion fruit, plum,
sapodilla, sapote, tamarind, tangerine, watermellon, watermellon seed,
Lima bean, snap bean, beets, beet greens, broccoli, cabbage, carrot,
cauliflower, celery, chayotes, collards, com, cucumber, egg plant,
lettuce, mushroom, mustard greens, okra, onion, parsley, peas (English,
blackeye, and Crowder), peppers, potatoes (white and sweet), pumpkin,
radish, rutabagas, spinach, squash, tomato, turnip, turnip greens,
coconut, coconut milk, peanut, pecans, chick-weed, white Dutch clover,
Sweet clover, trefoil, *Crotalaria striata*, lambsquarters, peppergrass,
pokeweed, spiderwork, acorns, catfish, bass, perch, mullet, redfish,
trout, mackerel, crayfish, oysters, shrimp, egg (whites and yolks)
were determined. The greens and the seeds were the best all-around sources of
the nutrients determined. When hogs were fed corn, cane, or citrus molasses,
the corn produced an alimentary flora favoring thiamine synthesis which
resulted in pork containing the highest thiamine content. Roasting of peanuts
caused a large loss of thiamine but little loss of riboflavin. Methods
were also developed to improve the ease of determining thiamine gasometrically
and riboflavin and niacin microbiologically.

ACCESSION NUMBER: 1952:68721 CAPLUS
DOCUMENT NUMBER: 46:68721
ORIGINAL REFERENCE NO.: 46:11491a-c
TITLE: Levels of thiamine, riboflavin, and niacin in
Florida-produced foods
AUTHOR(S): French, R. B.; Abbott, O. D.; Townsend, Ruth O.
CORPORATE SOURCE: Gainesville, FL
SOURCE: Florida Agr. Expt. Sta. Bull. (1951), No. 482, 5-19
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

L3 ANSWER 14 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN

AB Total and purine N were determined in successive clippings of grass over a
period of 5 months; the total N (as percentage of dry substance) decreased
from 5.13 in the 1st clipping to 2.48 in the last; the corresponding
decrease in purine N was from 0.140 to 0.067. In every clipping the
purine N was 2.7% of the total N. The total N of a number of feedstuffs and
the percentage of this N in the purine form are: corn meal 1.64 (1.7); rye
meal 1.3 (2.4); wheat meal 1.43 (1.8); oatmeal 1.45 (2.1); shorts 2.29
(2.4); soy cake 7.17 (2.1); peanut cake 7.73 (1.8); linseed cake 4.75
(2.0); skim-milk powder 4.73 (0.8); fish meal 8.23 (4.9); dried
yeast 7.00 (8.6). The ratio total N/(purine N) differs little in
vegetable seeds. The following data show, first, the total dry substance
in vegetables used as human food, the percentage of total N, and the
percentage of purine N in total N: garden cress 16.0, 5.67, 4.8; spinach
10.0, 4.87, 5.9; beet roots 10.2, 1.51, 13.3; beet leaves 13.3, 2.80, 3.1;
cabbage 5.0, 4.55, 4.3; potatoes 22.3, 2.20, 1.2; same potatoes 6 months
later 22.0, 2.29, 1.2. The kind of fertilizer (manure or $\text{Ca}(\text{NO}_3)_2$ and
 NH_4NO_3) applied with spinach, beets, and cabbage had no effect on the
proportion of purine N to total N, nor did time in the storage of
potatoes. A microanalytical method devised for this work consists in
boiling 2 g. sample under reflux for 4 hrs. with 25 ml. of 2% H_2SO_4 ; the
filtrate and washings are concentrated to 10 ml., diluted, and centrifuged,
treated with 5 ml. of a 10% solution of Na tungstate, centrifuged, and
decanted; the residue is stirred with NaOH solution until nearly dissolved

without becoming alkaline, acidified with 4 N H₂SO₄, centrifuged, and decanted; the combined decantates are filtered, alkalinized with NaOH, acidified with AcOH concentrated to 15 ml., treated with 1 ml. of 40% NaHSO₃ and 1 ml. of AcOH containing 1 ml. of 10% CuSO₄ and boiled 3 min. Next day the precipitate is filtered and washed with H₂O containing AcOH and CuSO₄, and its N content determined by the Kjeldahl method.

ACCESSION NUMBER: 1947:17626 CAPLUS
DOCUMENT NUMBER: 41:17626
ORIGINAL REFERENCE NO.: 41:3551d-h
TITLE: The purine content of feedstuffs (and vegetables)
AUTHOR(S): de Man, Th. J.; de Heus, J. G.
CORPORATE SOURCE: Inst. Moderne Veevoeding "De Schothorst", Hoogland, Nederland
SOURCE: Voeding (1946), 7, 147-51
CODEN: VOEDAK; ISSN: 0042-7926
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

L3 ANSWER 15 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN

AB Brief progress reports are presented. By dropping water from a buret upon small soil clods the relative stabilities of different soils were determined; Peorian loess, devoid of organic matter, disintegrated easily; Marshall silty clay loam broke up into small units which eventually gave way under the impact of water drops. Wheat straw or sweetclover residues returned to the soil increased the stability of the soil to water drops by 200-600%. Dextrose, sucrose, starch, peptone, cellulose, and gum arabic did not increase the stability of soil structure, but they did furnish energy material for soil microorganisms which produced substances that stabilized the soil. Lignins, proteins, oils, fats, waxes, and resin increased the stability directly. N fertilizers increased corn yields significantly when used at 40 lbs./acre. P and K did not increase corn yields. Clays of the montmorillonite type and the kaolinite type were studied with reference to the amount of Ca taken from the soil by soybean seedlings. Exptl. data support the theory that the process of plant feeding is essentially an exchange of H ions of the plant for the nutrient cations of the soil. A fractionation procedure for separating inorg. P on the basis of its solubility was worked out, and the amount of organic P was determined in Nebraska soils so that crop-response data can be studied more effectively. The Tift and Texas sweet Sudan strains of Sudan grass are comparatively high in HCN. The oil content of varieties and of individual plants of safflower varied from 20 to 34%. Exptl. work is being done on flax, sesame, hemp, milkweed, pyrethrum, sunflowers, and rape as chemurgic crops. For eradication of bindweed NaClO₃, Na₃AsO₃, and possibly borax are effective. Hoary cress required at least 6 lbs. of NaClO₃ per sq. rod for a satisfactory kill. Leafy spurge was eradicated with either 4 lbs. of NaClO₃ or 12-20 lbs. of borax. Russian knapweed was killed at the same concentration of NaClO₃, but not by borax. Dogbane required 5 lbs. of NaClO₃ or 20 lbs. of borax. Triumph potatoes stored at 40° or 42.5°F. within a few days of harvesting showed a very rapid increase in sucrose content within the first 2 weeks; thereafter the sucrose decreased slowly, but at the end of the storage period it was still greater than in potatoes stored at higher temps. At 45° or 47.5°F. the sucrose did not increase appreciably. It was not much greater than at 50°F. or higher. Reducing sugars increased rapidly at 40°F. and attained their maximum in about 90 days. As the storage temperature was increased from 40 to 50°F. the accumulation of reducing sugar was less. At 60°F. the amount of reducing sugar remained practically constant. At 70°F. relatively little was lost after a few weeks of storage. When the potatoes were stored at low temps., 1 month's storage at 70°F. was generally sufficient to bring about the disappearance of most of the sugar that had accumulated. With Warba variety reducing sugars increased rapidly at 40, 50, 60, and 90°F. They increased the least at the highest temperature. Sucrose remained constant at 70°F. and increased either above or below that storage temperature. In potatoes stored for 7 months approx. 25% of the ascorbic acid remained. Dehydroascorbic acid existed at the average rate of 4-7 mg. %. Storage recommendations are made. In tomatoes, smaller fruits contained the most ascorbic acid. When tomatoes were canned by open kettle, hot pack or cold pack, in small or large amts., or in pints or quarts, there was little difference in the percentage of ascorbic acid lost. Tomatoes blanched 1/2 min. lost 16%;

tomatoes blanched 1 min. lost 24% of their ascorbic acid. Bordeaux spray, Cu-Ca dust, and Cu-Ca-S dust were used against halo blight of green pod beans. Bordeaux spray reduced systemic infection. A pythiaceus fungus was isolated from rotted potatoes and its cultural requirements are being determined. Leafhopper damage to alfalfa decreased its carotene content and value as a feed. Microbial studies on enzymes have led to the isolation of starch-liquefying, dextrinizing, and saccharifying systems similar to the fungal type. Potato-tuber flea beetles, flea-beetle host plants, potato psyllid, leafhopper, aphids, and miscellaneous potato insects were treated with various insecticides. DDT reduced populations of leaf hopper, Aceratagallia uhleri, Lygus bugs, the false flea hopper, Chlamydatus associatus, and lepidopterous larvae. Some beneficial insects were also reduced. Dinitro-o-sec-butylphenol acted as a repellent to chinch bugs, although many moved across dust barriers. At 4 and 8% concns. kills were obtained within 1 hr. Young acorn squash plants were severely stunted by DDT; red spider mites were more prevalent on eggplant plots than on the control. Sabadilla proved very promising either as a water suspension or as a dust for controlling chinch bugs and squash bugs. A 10% boric acid in powdered confectioners' sugar and a 1:1 mixture of honey and butter plus 10% by weight of boric acid powder were of value in controlling German cockroaches. The protein requirements of pigs in dry lot were determined by feeding a concentrate mixture with mixed protein supplements. Fish meal (sardine), tankage soybean meal, and linseed meal were used. For pigs between 70 and 125 lbs. 18% protein was most economical. After pigs reached 125 lbs. they make satisfactory gains on only corn and alfalfa although addition of protein was considered of economical value because of greater gains. Waxy corn contained more crude protein, fat, fiber, ash, and less N-free extract than the non-waxy corn. When steer calves were fed grain and forage sorghums, the incidence of lithiasis, anasarca, and pathological liver was high unless vitamin A was fed. Sardine oil, carotene concentrate, and green and brown alfalfa hay were used as sources of vitamin A. Distillers' wheat dried grains and urea did not produce as great gains as did soybean oil meal for wintering heifer calves. Distillers' dried grains were approx. equal on an equivalent protein basis to soybean oil meal when fed to fattening heifer calves. Mixts. of distillers' grains and soybean meal oil produced slightly more finish than either separately. The N of urea was used to advantage when fed to fattening yearling steers. The contents of protein, fat, crude fiber, N-free extract, and water of raw safflower seed were 16.3, 29.8, 26.6, 17.5, and 6.9%; of cooked seed, 16.6, 26.8, 31.1, 18.8, and 3.9%, resp. Feeding expts. in chick rations suggest that its fiber content will limit it to 10% inclusion in the ration. The riboflavin content of the control corn was 672 units (not specified) per lb.; of the corn fermented for 24 hrs. at 70°F., 688; and of the corn allowed to mold for 6 days at summer temperature, 1798. Riboflavin assays are reported for dehydrated alfalfa leaf meal, field-cured leaf meal, cured-under-cover leaf meal, dehydrated leaf meal, stemmy meal, dry distillers' wheat by-product, soybean oil meal, Produlac-corn fermentation, liver meal, chicken scrap, dried whey, menhaden fish meal, and dried buttermilk. Studies of blood regeneration in college women blood donors showed that blood regeneration was incomplete at the end of 10 weeks when 75 g. of protein was furnished daily unless serum protein was used.

ACCESSION NUMBER: 1946:28108 CAPLUS
DOCUMENT NUMBER: 40:28108
ORIGINAL REFERENCE NO.: 40:5511f-i,5512d-i,5513a-g
TITLE: Nebraska agriculture 1944
AUTHOR(S): Burr, W. W.
SOURCE: Nebraska Agr. Expt. Sta., Ann. Rept. (1945), 58, 124 pp.
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

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